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AMENDMENT TO SPECIFICATION

2 mirror faces generally forward, so that a person may view his or her face in either the primary
3 mirror or the secondary mirror. Moreover, the primary mirror frame can be swiveled 180
4 degrees about the radially disposed swivel pin to thus position the reflecting surface of the s
5 tation overlying the primary mirror, to an upwardly angled orientation in which the surface of
6 the secondary econdary mirror in a rearward direction, away from that of the primary mirror.
7 With the secondary mirror thus swiveled, the secondary mirror frame is pivotable downwardly
8 to a position overlying and generally parallel to the upper surface of the secondary mirror, thus
9 positioning the reflecting surface of the secondary mirror in the same forward-facing direction
10 as that of the primary mirror. In this disposition, light emitted by the annular illumination source
11 and transmitted through the annular ring-shaped window of the primary mirror frame is
12 transmitted through the annular light transmissive bezel ring of the secondary mirror frame,
13 thus illuminating an object field located in front of the secondary mirror.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1A is a left side perspective view of a dual magnification travel mirror device with annular illuminator according to the present invention, showing the device in a fully telescoped and pivotably collapsed configuration suitable for travel.

Figure 1B is a left perspective view of the travel mirror device of Figure 1B A, showing a secondary mirror frame thereof pivoted upwardly from a dual mirror assembly of the device, and swiveled partially rearwardly.

Figure 1C is a front perspective view of the device of Figure 1B.

Figure 1D is a left perspective view of the travel mirror device of Figure 1B, showing a secondary mirror frame thereof swiveled partially rearwardly.

Figure 1E E is an oblique a front perspective view showing the secondary mirror frame swiveled 180 degrees from its disposition in Figure 1A, and pivoted downwardly into a partial overlying use position relative to a primary mirror and base part of the device.

Figure 2 is a lower plan view of the travel mirror of Figure 1.

1 Figure 3A is a perspective view of a left-handed modification of the travel mirror
2 of Figure 1.

3 Figure 3B is a front perspective view of the travel mirror of Figure 4 3A, showing
4 a dual mirror assembly and handle portion of the device pivoted upwardly from a base part of
5 the device.

6 Figure 4 is a front perspective view similar to that of Figure 31E, but showing the
7 handle of the device pivoted fully upwards from the base, and the dual mirror assembly
8 telescopedically extended to its maximum height.

9 Figure 5 is a rear perspective view of the arrangement of Figure 4.

10 Figure 6A is an exploded longitudinal sectional view of dual mirror assembly of
11 the device of Figure 3 1.

12 Figure 6B is an upper plan view of a hinge coupler for the dual mirror assembly
13 of Figure 6A.

14 Figure 6C is a side elevation view of the hinge coupler of Figure 6A.

15 Figure 6D is an upper plan view of the hinge coupler of Figure 6A.

16 Figure 6E is an exploded sectional view of a base component of the mirror device
17 of Figure 1.

18 Figure 6F is an exploded sectional view of a handle component of the mirror
19 device of Figure 1.

20 Figure 7A is an a fragmentary upper plan view of a primary mirror frame of the
21 dual mirror assembly of Figure 6A.

22 Figure 7B is a longitudinal sectional view of the primary mirror frame of Figure
23 7A.

24 Figure 7C is a fragmentary lower plan view of the primary mirror frame of Figure
25 7A.

26 Figure 7D is a sectional view of the frame of Figure 7C, taken in the direction of
27 line 7D-7D.

28

1 Figure 7E is an a fragmentary upper plan view of a secondary mirror frame of the
2 dual mirror assembly of Figure 6A.

3 Figure 7F is a longitudinal sectional view of the secondary mirror frame of Figure
4 7E 7E.

5 Figure 8A is a front perspective view of the left-hand mirror device of Figure 5 3A,
6 showing the handle pivoted rearwardly to an oblique angle, and showing an upper, secondary
7 mirror of the dual mirror assembly pivoted upwardly away from a lower, primary mirror thereof.

8 Figure 8B is a fragmentary front elevation view of an annular diffuser plate for the
9 primary mirror frame of Figure 1.

10 Figure 8C is a longitudinal sectional view of the diffuser plate of Figure 8B.

11 Figure 9 is a side elevation view of the device arrangement of Figure 8A.

12 Figure 10A is a perspective view similar to that of Figure 8A, but showing the
13 right-hand mirror device of Figure 1, with the upper, secondary mirror rotated 180 degrees
14 about a longitudinal, radially disposed swivel axis lying in a vertical medial plane of the handle.

15 Figure 10B is a view similar to that of Figure 10A, but showing the secondary
16 mirror and being pivoted downwardly about a transverse pivot axis perpendicular to the rotation
17 axis, to thereby orient the frame side of the upper mirror next to the front surface of the lower
18 mirror, thereby orienting the front, reflective surface of the upper mirror to a forward-facing use
19 position.

20 Figure 10B C is a view similar to that of Figure 10A B but showing the secondary
21 mirror nearly parallel to the primary mirror, and showing light emitted by an annular illuminator
22 of the primary mirror transmitted through a light transmissive bezel ring of the secondary mirror
23 frame to thereby illuminate an object field in front of the secondary mirror.

24 Figure 11 is a left side perspective view of the left-hand mirror device of Figure
25 4A 3, showing the dual mirror assembly thereof telescopically retracted on the handle towards
26 the base of the device, and showing the upper mirror of the dual mirror assembly pivoted
27 upwardly and rotated to orient the reflective surface of the upper mirror to a forward use
28 position.

1 Figure 12A is an exploded lower perspective view of the mirror device of Figures
2 1A and 2, showing an upper half shell portion of the base removed from a lower half shell
3 portion and inverted.

4 Figure 12B is an enlarged lower view of the upper half shell portion of the base
5 shown in Figure 12C A.

6 Figure 12C is a fragmentary lower plan view of the upper half-shell portion of the
7 base of Figure 12B, showing circuitry thereof removed.

8 Figure 12D is a transverse sectional view of the upper base half-shell of Figure
9 12C.

10 Figure 12E is a longitudinal sectional view of the upper base half-shell of Figure
11 12C.

12 Figure 12F is an upper plan view of the upper base half-shell of Figure 12C.

13 Figure 12G is a transverse sectional view of the upper base half-shell of Figure
14 12F.

15 Figure 12H is an upper plan view of the lower base half-shell of Figure 12A, on
16 a somewhat larger scale.

17 Figure 12J is a side elevation view of the lower base half-shell of Figure 12H.

18 Figure 13 is an enlarged view of the mirror frame and handle assembly and the
19 lower shell portion of the base shown in Figure 12A, and showing handle-pivot friction control
20 elements transferred from upper half shell grooves to lower half shell grooves, the mirror frame
21 fully extended, and the secondary mirror swiveled into a use position overlying the primary
22 mirror.

23 Figure 14 is a view similar to that of Figure 13, ~~but on a further enlarged scale~~
24 and showing the handle portion of the device pivoted away from the base.

25 Figure 15A is a front elevation view of a front body shell portion of the handle of
26 the mirror of Figure 1.

27 Figure 15B is a transverse vertical sectional view of the handle shell of Figure
28 15A, taken in the direction of line 15B-15B.

1 Figure 15C is a transverse vertical sectional view of the handle shell of Figure
2 15A, taken in the direction of line 15C-15C.

3 Figure 15D is a transverse vertical sectional view of the handle shell of Figure
4 15A, taken in the direction of line 15D-15D.

5 Figure 16 is a longitudinal sectional view of the handle shell of Figure 15A.

6 Figure 17 is a rear elevation view of a rear cover portion of the handle of the
7 mirror of Figure 1.

8 Figure 17A is a transverse vertical sectional view of the rear handle cover of
9 Figure 17, taken in the direction of line 17A-17A.

10 Figure 17B is a transverse vertical sectional view of the rear handle cover of
11 Figure 17, taken in the direction of line 17B-17B.

12 Figure 17C is a side elevation view of the rear handle cover of Figure 17.

13 Figure 17D is a longitudinal sectional view of the rear handle cover of Figure 17,
14 taken in the direction of line 17D-17D.

15 Figure 18 is a rear elevation view of a handle retainer detent plate which mounts
16 in the primary mirror frame of Figure 7.

17 Figure 19 is a transverse sectional view of the detent plate of Figure 17.

18 Figure 20 is a longitudinal sectional view of the retainer detent plate of Figure 18.

19 Figure 21 is an enlarged fragmentary view of the detent plate of Figure 20.

20 **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

21 Figures 1A-19 21 illustrate various aspects of a dual magnification folding travel
22 mirror with annular illuminator according to the present invention.

23 Referring first to Figures 1A-8A, it may be seen that a dual magnification travel
24 mirror with annular illuminator 20 according to the present invention includes a base 21, an
25 elongated, generally rectangularly-shaped handle 22 pivotably mounted at a lower end thereof
26 to a front edge of the base by a handle pivot joint 23, and a dual mirror assembly 24
27 telescopically mounted to an upper end of the handle.

28

1 As shown in Figures 6A-9, dual mirror assembly 24 includes a first, lower, or
2 primary circular dish-shaped mirror frame 25 in which is mounted a first, lower or primary
3 circular disk-shaped mirror 26. As is also shown in those figures, dual mirror assembly 24
4 includes a second, upper or secondary circular plate-shaped mirror frame 27 in which is
5 mounted a second, upper or secondary circular disk-shaped secondary mirror 28. As shown
6 in Figures 8A and 9, secondary mirror frame 27 is pivotably and swivelably coupled to primary
7 mirror frame 25 by a dual joint hinge coupler 29. As shown in Figures 7A-9, hinge coupler 29
8 is joined to primary mirror frame 25 by a pair of circumferentially spaced apart, parallel lugs
9 30L, 30R which protrude chordally outwards from an upper peripheral portion 31 of primary
10 mirror frame 25.

11 As shown in Figures 6B-6D, hinge coupler 29 includes a laterally symmetrically-
12 shaped body 32 which has a generally cylindrically-shaped lower bushing member 33 that fits
13 between inner facing surfaces 34L, 34R of lugs 30L, 30R. Bushing 33 has disposed laterally
14 through its length a bore 35 which is coaxially aligned with and rotatable with respect to a
15 transversely disposed pivot axle 36 which is disposed through the bore and which is fixed at
16 opposite longitudinal ends thereof in bores 37L, 37R through lugs 30L, 30R.

17 Body member 32 of hinge coupler 32 includes a generally rectangularly-shaped,
18 laterally elongated boss 38 which protrudes radially outwardly from lower bushing portion 33.
19 Boss 38 has an upper surface 39 which lies in a plane above transverse pivot axle 36 and has
20 protruding perpendicularly downwards into upper surface 39 a swivel pin bore 40 which is
21 disposed perpendicularly to and radially outwardly from the transverse pivot axle, midway
22 between opposite transverse sides 41L, 41R of bushing member 33 located at opposite
23 longitudinal ends thereof. Swivel bore 40 rotatably holds a swivel pin 42 which protrudes
24 radially outwardly from a lower edge 43 of upper, secondary mirror frame 27. With this
25 arrangement, secondary mirror frame 27 is pivotable above transversely disposed pivot axle
26 36, and swivable in orthogonally disposed, radial swivel pin bore 40, as shown in Figures 8
27 and 10.

28

As shown in Figures 6A, 7A, 7BD, 8B, and 118C, primary mirror frame 25 includes in an outer peripheral portion which borders primary mirror 26 a rearwardly or inwardly concave annular ring-shaped lamp channel 44 in which is mounted a circular ring-shaped, tubular lamp 45, which is preferably a cold-cathode, fluorescent lamp. As shown in Figure 6A, 8A, and 8B, lamp channel 44 has a generally flat, annular, ring-shaped cover window 46 which has light transmissive and preferably partially light-diffusive. In a preferred embodiment, primary mirror 26 has a concave, spherically-shaped reflective surface 47 which has a radius of curvature selected to yield a desired magnification factor, e.g., between about 5X and about 9X. Although the dimensions of lamp channel 44 are not critical, the radial width of the channel in an example embodiment of travel mirror 20 was about 3/4 inch.

As shown in Figures 6A, 7A and 7B, primary mirror 26 is mounted within a rearwardly concave, generally spherically contoured cavity 48 formed in the front surface of primary mirror frame 25, concentrically located with respect to lamp channel 44, by any suitable means, such as thin strips of tape 49 coated on both sides with a pressure sensitive adhesive and located between an outer annular portion 50 of rear surface 51 of the mirror, and an annular shoulder ledge 52 which protrudes radially inwardly of the outer circumferential wall of the cavity. As shown in Figures 6A and 7B, shoulder ledge 52 is recessed inwardly or rearwardly of outer circumferential edge 53 of primary mirror frame 25, sufficiently far to locate the front surface 54 of primary mirror 26 inwardly or rearwardly of annular lamp channel cover window 46, thereby preventing contact between the front surface of the primary mirror with the front surface 55 of secondary mirror 28, when secondary mirror frame 27 is pivoted to overlie the primary mirror, as shown in Figure 1.

Referring to Figure 6A, it may be seen that secondary mirror 28 has a circular shape, and may have a spherical concave surface which has a different radius of curvature than that of primary mirror 26, but preferably has less curvature and thereby a smaller magnification factor. In a preferred embodiment, mirror 28 has an infinitely large radius of curvature, i.e., is flat, and thus has a "1X" or unity magnification factor.

28

As shown in Figures 6A, 7E, 7F, and 11, secondary mirror frame 27 has a shape approximating that of a thin circular plate which has a flat front surface 56 and a convex, arcuately curved rear surface 57 which has a slight curvature. Front surface 56 of secondary mirror frame 27 has formed therein a concentric, circular shallow recess 58 which has a circular bottom wall 59 and a cylindrically shaped peripheral wall 60. Recess 58 has an outer circumference 61 sufficiently smaller than that of the outer circumferential edge 62 of secondary mirror frame 27 to form therebetween an annular ring-shaped bezel 63 which has a radial width approximately equal to or slightly less than that of annular ring-shaped cover window 46 of primary mirror frame 25, e.g., about 5/8 inch. According to the invention, at least bezel portion 63 of secondary mirror frame 27 is made of a light transmissive material. In a preferred embodiment, frame 27 is fabricated as a unitary molded part from a transparent material such as a polycarbonate or acrylic polymer plastic.

Secondary mirror 28 is retained within recess 58 of frame 27 by any suitable means, such as pressure sensitive adhesive 64 between rear surface 65 of the secondary mirror and upper surface 66 of bottom wall 59 of the recess.

Referring to Figures 3, 6A, 7EE, and 7EE, it may be seen that secondary mirror frame 27 has a sector-shaped notch formed in outer circumferential edge 62 thereof, thereby forming a straight edge wall 67 lying along a chord of the outer circumferential edge, the edge wall being bisected by a radius of the frame. Chordal edge wall 67 of secondary frame 27 has a flat outer peripheral surface 68 which is perpendicular to flat front surface 56 of the frame, and has protruding radially inwardly therefrom a tapered bore 69 in which is fixed swivel pin 42. As explained above, the outwardly protruding, lower portion 42 of swivel pin 42 is rotatably held within swivel bore 4240 of hinge coupler 29.

Figures 1A-21 4,5 and 9-14 illustrate details of base 21, handle 22, and handle pivot joint 23 of travel mirror 20 according to the present invention. As shown in those figures, base 21 preferably includes an upper upwardly concave base half shell 70, and a lower downwardly concave base half shell 71, each of which has in plan view a longitudinally elongated oblong shape with arcuately curved transverse end walls. Thus, upper half shell 70

1 has an upper wall 72 which has protruding downwardly therefrom a flange wall 73 which
2 includes straight left and right parallel longitudinally disposed side wall segments 74, 75 and
3 front and rear convex arcuately curved transverse end wall segments 76, 77, respectively,
4 which are each symmetrically shaped about a longitudinal vertical center plane of the base, and
5 symmetrically shaped with respect to one another through a transversely disposed central
6 mirror plane of the base. Similarly, lower base half shell 71 has a lower base wall 82 which has
7 protruding upwardly therefrom a flange wall 83 which includes straight left and right parallel
8 longitudinally disposed side wall segments 84, 85 and front and rear convex arcuately curved
9 transverse end wall segments 86, 87, respectively, which are each symmetrically shaped about
10 a longitudinal vertical center plane of the base, and symmetrically shaped with respect to one
11 another through a transversely disposed central plane of the base. As shown in Figures 5 and
12 6AE, upper half shell 70 has formed in upper surface 72U of upper wall 72 thereof a relatively
13 wide, longitudinally elongated rectangularly-shaped handle groove 87 located centrally between
14 left and right side walls 74, 75 of the upper half shell.

15 Referring now to Figures 9-14, it may be seen that upper and lower half shells 70,
16 71 have inner concave spaces 90, 91, respectively, which, when the half shells are fastened
17 together, form an elongated hollow interior space 92. Concave inner space 90 of upper half
18 shell 70 contains a battery compartment 93 which is adapted to hold four AA dry cells
19 connected in series with a pair of positive and negative output lead wires 94, 95 which are
20 connected in parallel with a battery eliminator jack 96 mounted in a vertically opposed pair of
21 upper and lower slots 97, 98 of upper and lower half shells 70, 71, the jack protruding rearward
22 through upper and lower U-shaped half apertures 99, 100 in rear transverse end walls 77, 87,
23 respectively, of the upper and lower half shells. Positive and negative output lead wires 94, 95
24 are also connected through a switch 101 to power input terminals of a d.c.-a.c. inverter 102,
25 which has a pair of high-voltage a.c. output lead wires 103, 104 which thread through the bore
26 105 of a diametrically split axle bushing 106 located at a transverse end of a handle pivot axle
27 107 located at the lower end of handle 22, and thence to electrodes 108, 109 of lamp 45.
28

As shown in Figures 2 and 1112A, bottom half shell 71 of base 21 has a longitudinally disposed battery compartment access door 110 frictionally held within a longitudinally elongated, rectangularly shaped battery compartment access port 111 by a resilient plastic folded leaf-shaped self-spring latch 112 molded integrally with the access door, which is vertically aligned with battery compartment 93. Preferably, base wall 82 of lower half shell 71 also has through its thickness dimension a pair of longitudinally spaced apart, front and rear laterally disposed mounting holes 113F, 113B which each have generally circularly shaped center portion 114 and a pair of diametrically opposed radially outwardly protruding, mirror-symmetric slots 115 for slidably receiving the shank of mounting screw (not shown) screwed into a wall which has a head (not shown) insertable into the center portion of the mounting holes, thereby enabling travel mirror 20 to be removably mounted onto a wall by a pair of vertically disposed screws.

Referring to Figures 9-16 12A-14, it may be seen that handle pivot axle 107 located at a lower end portion of handle 22 has a generally cylindrical shaped major body portion 116 which is disposed transversely between opposite left and right vertical sides 117L, 117R of the handle. Pivot axle 107 includes at one side of, e.g., the left side, a bushing 106 of smaller diameter than body 116 of the axle which protrudes axially, i.e., perpendicularly outwards from left transverse face end 119 of the axle body. Also, pivot axle 107 has protruding from an opposite, e.g., right transverse side thereof, a cylindrically shaped boss section 120 which has a diameter approximating that of main axle body 116. Cylindrical boss section 120 of axle 107 has formed in outer cylindrical wall surface 121 thereof a rectangular cross-section, circumferential annular groove 122, an inner transverse end wall 123 of which is located adjacent to right vertical side wall 117R of the handle. Boss section 120 also has a cylindrically shaped axially outwardly located end portion 124 which extends from an outer transverse end wall 125 of groove 122. Outer cylindrical end portion 124 of right-hand cylindrical boss section 120 of handle pivot axle 107 has a transversely disposed, outer circular end face 125, which has protruding perpendicularly outwards therefrom a concentrically located stud 126 which has a generally rectangular transverse cross section.

Referring still to Figures 9-16 12A-14, it may be seen that upper and lower base half shells 70, 71 have formed in front portions of inner opposed concave faces 127, 128 thereof transversely disposed, generally semi-cylindrically shaped upper and lower grooves or channels 129, 130, respectively, which, when the half shells are secured together, form a generally cylindrically-shaped cavity 131 for rotatably receiving cylindrically-shaped handle pivot axle 107. Thus, as shown in Figures 9-11, lower base half shell 71 has protruding upwardly from lower base wall 82 thereof a laterally centrally located, generally semi-cylindrically-shaped pivot axle groove 132 which has a front upper wall 133 adjacent to front transverse end wall 86 of the base shell. Pivot axle groove 132 has a rear edge wall comprised of a thin, arcuately curved web 134 which protrudes upwardly from the upper surface 135 of lower base wall 82, and a lower wall surface 135 comprised of a semi-cylindrically contoured groove formed in the upper surface of the lower base half shell. As shown in Figure 44 12H, lower curved wall surface 135 of semi-cylindrical pivot axle groove 132 preferably has protruding downwardly therefrom a laterally elongated, rectangularly-shaped shallow recess 136 in which is mounted a rectangularly-shaped friction pad 137 that is made of a material such as silicone rubber which has a relatively large surface coefficient of sliding friction.

As shown in Figure 2B and 11 12H, pivot axle groove 132 has left and right U-shaped, transverse end journals 138, 139 located at left and right ends thereof, respectively, of the groove. The end journals 138, 139 are comprised of generally uniform-thickness, transversely disposed U-shaped webs 140, 141 which protrude perpendicularly upwards from upper surface 135 of lower base wall 82 of lower half shell 71. Left and right end journals 138, 139 have formed in upper surfaces thereof left and right downwardly concave semi-cylindrically-shaped grooves 142, 143 which are of a suitable size and lateral spacing from one another to rotatably receive the left-hand bushing 106 and right-hand groove 122 of right-hand cylindrical boss section 120, respectively, of handle pivot axle body 116.

As is also shown in Figure 2B and 11 12H, lower base half shell 71 also includes a generally semi-cylindrically shaped, axial friction control groove 144 which is adjacent to the outer, right-hand transverse face 145 of right-hand handle pivot axle body journal 139. Friction

control groove 144 is coaxially aligned with lower semi-cylindrical pivot axle groove 132, and preferably of smaller diameter and length. Also, friction control groove 144 has located at a right transverse end thereof a short semi-cylindrically shaped nut holder groove 146 which has a polygonal transverse cross-section and which is adapted to irrotatably hold a hex nut 147. Nut holder groove 146 has an outer, right-hand transverse end journal 148 which has the form of a U-shaped web 149 that has in an upper surface thereof a groove 150 adapted to rotatably receive the shank 151 of a friction adjustment screw 152 which has located at the outer end thereof, a fluted friction-adjustment knob 153. Also, the inner, left-hand transverse end of nut holder groove 146 is bordered by a U-shaped left-hand end journal 154 comprised of U-shaped web 155 which protrudes upwardly from upper surface 135 of lower base wall 82 of lower half shell 71. Left-hand nut groove journal 154 has formed in upper surface 156 of web 155 thereof a downwardly concave semi-cylindrically shaped groove 157 which is of a suitable size to provide clearance for and therefore allow free rotation of screw shank 151.

Referring still to Figure 11-12H it may be seen that outer, left-hand transverse face 158 of left-hand nut groove journal 154 has protruding axially outwards therefrom a pair of generally rectangularly-shaped, vertically disposed front and rear end spacer ribs 159F, 159B, which are spaced equal distances radially outwards from front and rear sides of journal groove 157. Outer, left-hand face 158 of left-hand nut groove journal 158 also has protruding axially outwards from a lower base portion thereof a low, rectangular cross-section, slider rib 160 which protrudes upwardly from the center of lower semi-cylindrical wall surface 161 of friction control groove 144. As shown in Figures 9 and 10, slider rib 160 protrudes upwardly into a longitudinally disposed lower groove 162L formed in the outer cylindrical surface 163 of a cylindrically-shaped slider bushing 165 which is longitudinally slidably located in axial friction control groove 144.

As shown in Figures 11-12 12A-14, slider bushing 165 has formed in outer cylindrical surface 163 thereof upper and lower longitudinally disposed, diametrically opposed, rectangular cross-section grooves 162U, 162L, respectively. Slider bushing 165 has a transversely disposed circular, flat outer or right-hand end face 166, and a circular left-hand

transverse face in which are formed axially inwardly protruding rectangular cross-section
1 vertically disposed transverse grooves 167U, 167L which are continuous with upper and lower
2 vertically disposed transverse grooves 162U, 162L, and a pair of radially disposed front and rear transverse
3 longitudinal grooves 168F, 168B which are perpendicular to the vertically disposed grooves. All of the
4 above-identified end face grooves radiate from a coaxially centrally located blind bore 169
5 which protrudes inwardly from outer, left-hand transverse face 170 of slider bushing 165. Bore
6 169 is provided for receiving stud 126 which protrudes outwardly from boss 120 of handle pivot
7 axle 107. The function of end face grooves 167U, 167L, 168F, 168B is to facilitate elastic
8 deformation of bushing 165 in response to longitudinal forces exerted on the bushing.
9

As shown in Figures 11 and ~~12~~ 12A-14, friction control groove 144 longitudinally
10 slidably holds in axial alignment with slider bushing 165 a circular rubber washer 171, which is
11 preferably sandwiched between a pair of outer and inner circular plastic washers 172O, 172I,
12 all of which have a diameter approximating that of the slider bushing and slightly less than that
13 of the friction control groove. Each of the washers is provided with central coaxial through-
14 bore. The inner transverse face 173I of inner plastic washer 172I adjacent to outer circular end
15 bore 126 of right-hand cylindrical boss section 120 of handle pivot axle 107 is pressed against
16 the right-hand end face of the handle axle boss section with an axial force which is adjustable
17 by turning friction control knob 153. Turning friction control knob 153 in a direction which
18 advances friction adjustment screw shank 151 towards the handle pivot axle increases the axial
19 frictional force exerted on the pivot axle to resist pivotable motion of the handle relative to the
20 base; turning the control knob in the opposite direction retracts the screw shank to thereby
21 reduce frictional resistance to pivotable motion of the handle.
22

Referring to Figures ~~12A-14~~ 11, it may be seen that upper base half shell 70 has
23 formed therein an upwardly concave generally semi-cylindrically shaped, transversely disposed
24 upper half shell channel 129 that has several structural elements which have shapes
25 complementary to those of elements of the lower half shell which were identified and described
26 above. Those upper and lower structural elements are mirror symmetrical through a
27 horizontally disposed joint plane between upper and lower base half shells 70, 71 and
28

cooperate to form generally cylindrically shaped cavities. Thus, for example, upper base half shell 70 has left and right transverse end journals 188, 189, which mate with lower base half shell journals 138, 139, the semi-cylindrically shaped grooves 142, 143 of the lower journals mating with semi-cylindrically shaped grooves 192, 193 of the upper half shell journals to form closed, cylindrically shaped pivot axle body end journals 292, 293, respectively. Similarly, upper base half shell 70 has formed therein an upper semi-cylindrically shaped friction control groove 194 which forms with lower semi-cylindrically shaped friction control groove 144 of lower base half shell 71 a cylindrically shaped friction control cavity 293. Upper base half shell 70 also includes a semi-cylindrically shaped upper nut holder groove 196 which is bordered on right and left ends thereof by right and left upper nut groove journals 198, 204, forming with corresponding lower right and left journals 148, 154, respectively, a closed, cylindrically shaped nut holder cavity 296.

Referring still to Figures 12A-14-11, it may be seen that upper base half shell 70 has protruding downwardly from the upper inner surface thereof spacer ribs 209F, 209B and a slider rib 210 which are mirror images of ribs 159F, 159B, and 160, respectively, of lower base half shell 71.

As shown in Figures 11-12 12A-14, upper base half shell 70 has protruding rearwardly from front edge wall 221 thereof an elongated, rectangularly-shaped notch 222 which is laterally symmetrically located with respect to the left and right side walls 223L, 223R of the upper half shell. With upper and lower base half shells 70, 71 fastened together, notch 222 is vertically aligned with semi-cylindrically shaped pivot axle groove 132, and enables handle pivot axle 107 to rotate from an angular orientation in which handle 22 is received in handle groove 87 in the upper surface of the upper half shell, in a compact storage/transit configuration, to an upright use configuration in which the handle is angled upwardly from base 21, as shown in Figures 11 and 14.

Figures 15A through 19 21 illustrate structural elements of mirror device 20 which enable telescopic adjustment of dual mirror assembly 24 of mirror device 20 to a desired height relative to base 21. As shown in those figures, handle 22 of mirror 20 has a vertically elongated,

1 generally rectangular plan-view front portion 224 which has a shape approximating that of
2 rectangular cross-section channel member or shell which includes a front vertically elongated
3 rectangular front base plate member 225, and rearwardly protruding left and right flange walls
4 226L, 226R. Front handle portion 224 has a rearwardly curved, transversely disposed lower
5 end portion 227 which is coextensive with front, upper half 228 of handle pivot axle 107. Also,
6 handle 22 has a rear rectangular plate-shaped panel 229 which is secured within a
7 longitudinally disposed channel 230 in the rear side of front handle shell 224, and has located
8 at a lower end thereof a transversely disposed, generally semi-cylindrically shaped extension
9 231 which mates with semi-cylindrically shaped lower end 227 of front handle shell 224 to form
10 cylindrically-shaped handle pivot axle 107. Handle 22 fits telescopically slidably within an
11 elongated rectangular bore 232 within an elongated generally rectangularly-shaped handle boss
12 tube 233 which protrudes rearwardly from rear surface 234 of primary mirror frame 25, the
13 handle boss extending vertically along a diameter of the mirror frame, centered on a diameter
14 thereof.

15 As shown in Figures 7B 6A, 7A-7D and 15-19, bore 232 of handle boss tube 231
16 has mounted in a front or bottom longitudinally disposed base wall thereof a generally
17 rectangularly-shaped, longitudinally elongated detent plate 235. Detent plate 235 has located
18 in rear surface 236 thereof a plurality of a longitudinally spaced apart, laterally disposed detent
19 grooves 237. As is also shown in Figures 15A and 16, front base plate member 225 of front
20 handle shell 224 has an upper transversely disposed edge wall 238 which has protruding
21 perpendicularly inwardly therefrom a pair of parallel, longitudinally disposed left and right slots
22 239L, 239R which are spaced equal distances to the left and right, respectively, of a
23 longitudinally center plane of the handle shell. Slots 239L, 239R form therebetween a
24 rectangularly-shaped tab 240, which is flexibly and resiliently joined at a rear transverse edge
25 thereof to a longitudinally inwardly located portion of the front base wall plate 225 by an
26 elastically deformable self hinge 242, resulting from front wall plate 225 being made of an
27 elastically deformable polymer such as polypropylene. Tab 240 has protruding downwardly or
28 forwardly from a front edge wall 243 thereof a laterally disposed, radiused detent rib 244.

1 Detent rib 244 is of the proper size and shape to snap resiliently into a particular one of detent
2 grooves 237 that it becomes aligned with as primary mirror frame 25 is moved longitudinally
3 with respect to handle 22. With rib 244 resiliently engaged within a detent groove 237, a
4 relatively large longitudinal force must be exerted on handle 22 relative to primary mirror frame
5 25 to disengage the rib from the groove. Thus constructed, primary mirror frame 25 is
6 telescopically extendible and retractable with respect to handle 22, to an adjustable length or
7 height relative to base 22, the adjusted height being maintained by cooperative action of the
8 detent rib and a detent groove.

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